



# MacBook Pro with Retina Display Bill of Materials

Written By: Miroslav Djuric

## SUMMARY

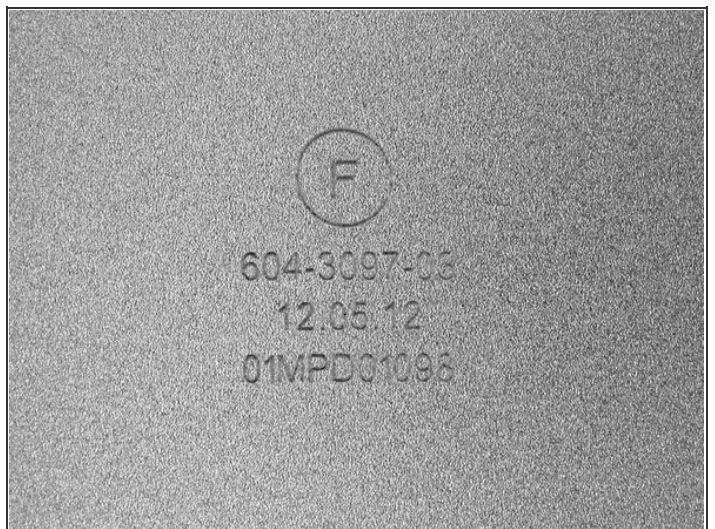
This is the full bill of materials (BOM) for the 2012 MacBook Pro 15" with Retina Display.

## Step 1 — Case Components



- Pentalobe screw - quantity 10

## Step 2



- Lower case - quantity 1
- 604-3097-03 12.05.12 01MPD01098

### Step 3



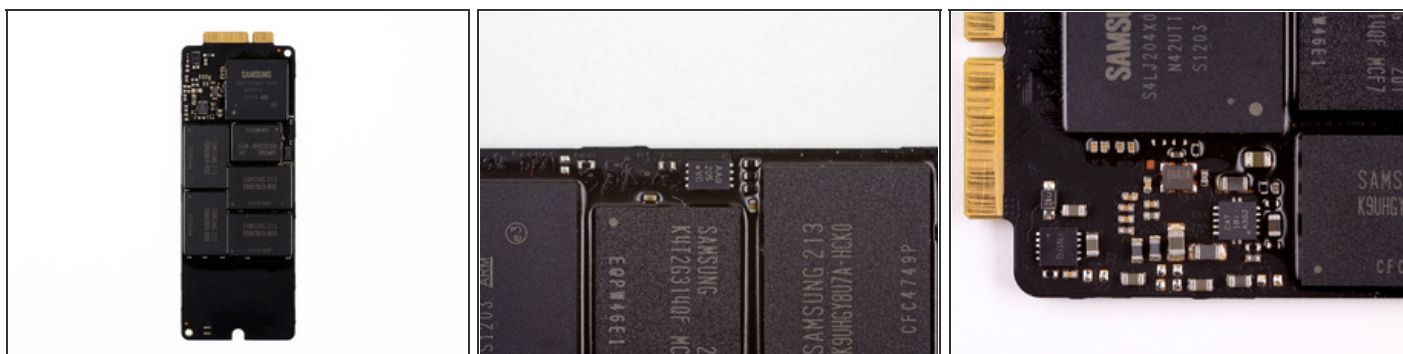
- Upper case - quantity 1
- 313-9739-15 2012.05.29 02VPN01076

### Step 4



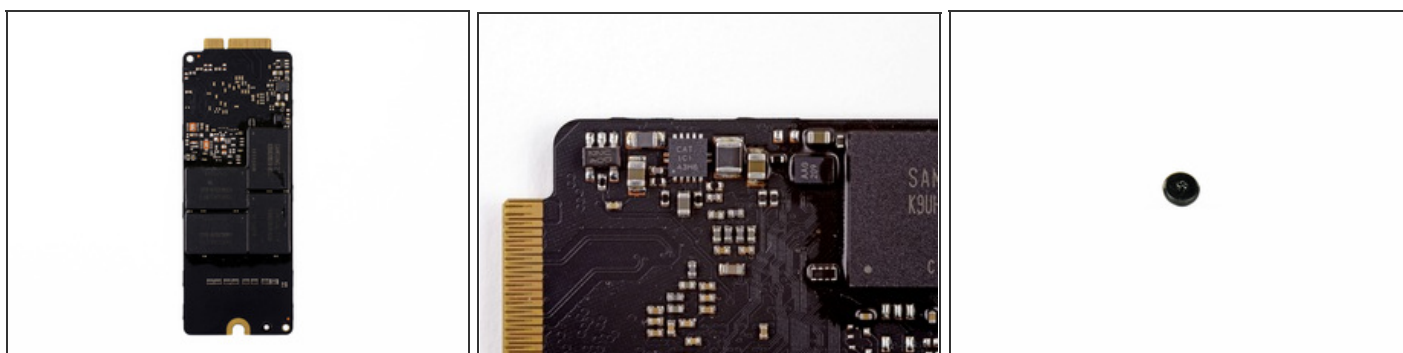
- Display assembly rear case - quantity 1
- 604 3110 05 12.05.24 01MPN04722

## Step 5 — Storage



- Flash memory module - quantity 1
  - Samsung S4LJ204X01 - quantity 1
  - Samsung 213 K9UHG8U7A - quantity 8
  - Samsung 201 K4T263140F - quantity 1
  - CAT 1BI A3GJ - quantity 1
  - D602A - quantity 1
  - FN1YQ - quantity 1

## Step 6



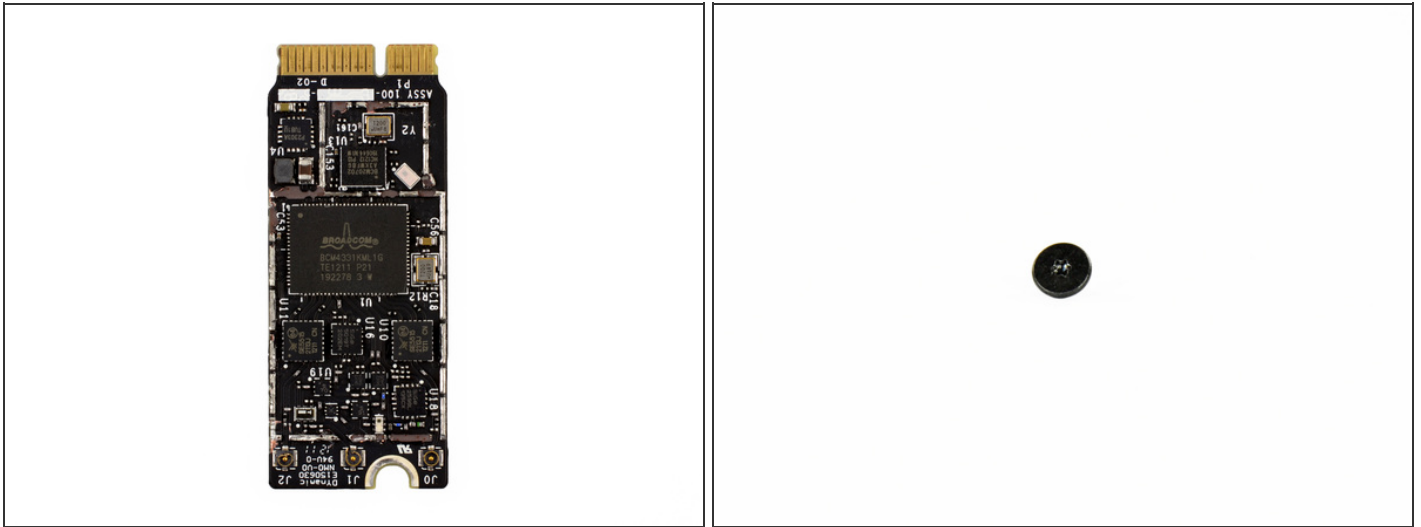
- AAG 205 VC - quantity 1
- AAG 209 VC - quantity 1
- Samsung 213 K9UHG8U7A - quantity 4
- CAT 1C1 A3H6 - quantity 1
- UD 20 24 - quantity 1
- T5 Torx SSD screw - quantity 1

## Step 7 — Wireless Module



- AirPort/Bluetooth board - quantity 1
- Broadcom BCM4331 - quantity 1
- Broadcom BCM20702 - quantity 1
- Skyworks SE5515 - quantity 2
- SiGe 5019T - quantity 1
- SiGe 2598L - quantity 1
- Skyworks SKY3 5404 - quantity 1

## Step 8



- Skyworks SKY2 5405 - quantity 1
- T200 UmF8 - quantity 1
- T200 UqA9 - quantity 1
- P2303A - quantity 1
- S31 - quantity 1
- S70 - quantity 1
- K - quantity 1
- T5 Torx AirPort screw - quantity 1

## Step 9

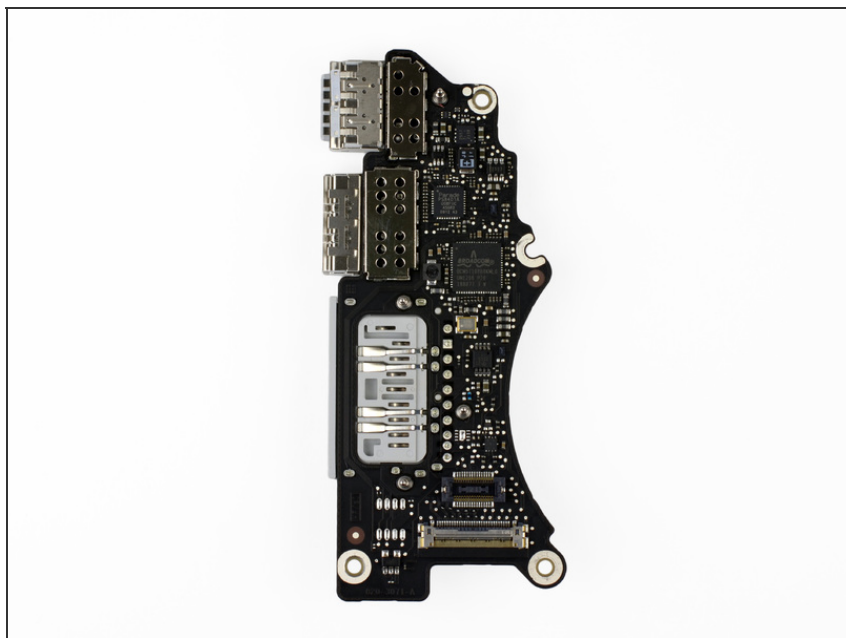


- V51L 2130A - quantity 1
- 66A H1 2FS - quantity 1
- 23YCUN - quantity 2
- 216I CC - quantity 4

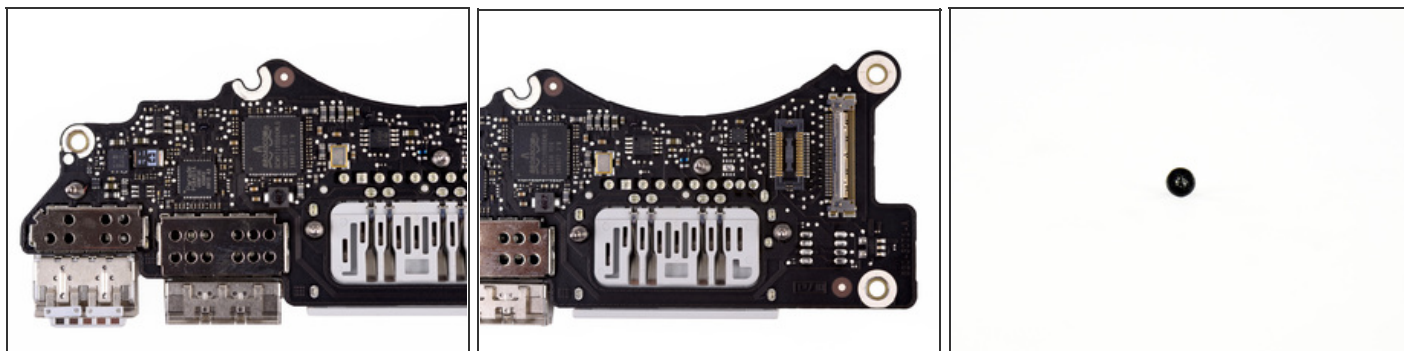
## Step 10 — I/O Board



- Z2 1209 - quantity 2
- N1 - quantity 1
- DP - quantity 1

**Step 11**

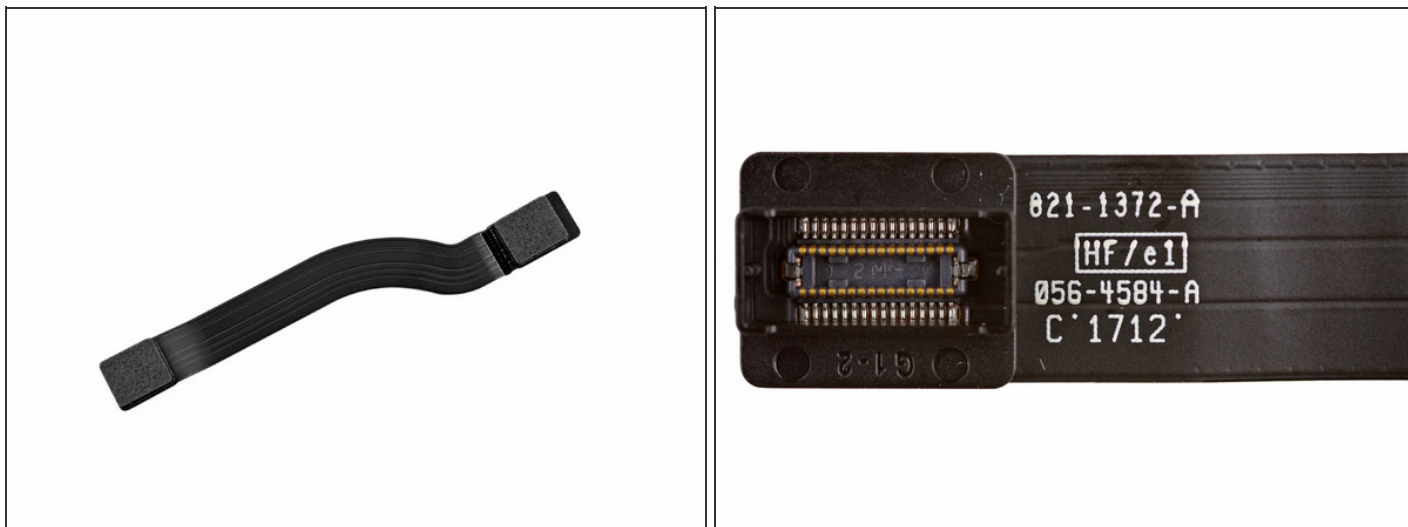
- I/O board - quantity 1
- Broadcom BCM57100 - quantity 1
- Paradise PS8401 - quantity 1
- 2557 TI 2138 - quantity 1
- J8jr - quantity 1
- 2553 - quantity 1
- Texas Instruments 21 2065 - quantity 1
- T250 Vq22 - quantity 1

**Step 12**

- 22PFL5 - quantity 2
- FTF 1N1 A - quantity 1
- 0502N - quantity 1
- F54 - quantity 1
- DP - quantity 1
- A00G - quantity 1
- T5 Torx I/O board screw - quantity 2



### Step 13



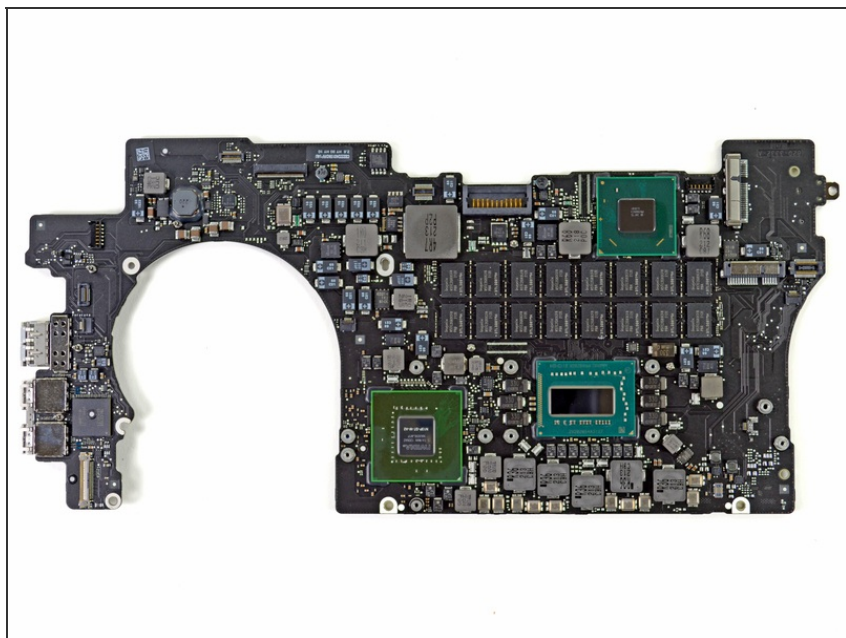
- I/O board cable - quantity 1

### Step 14



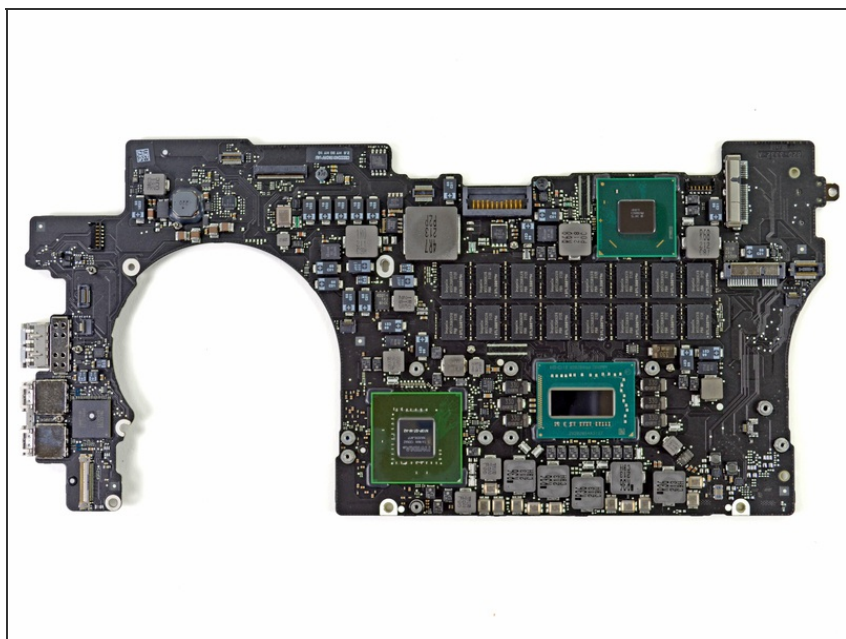
- HDMI data transfer cable - quantity 1

## Step 15



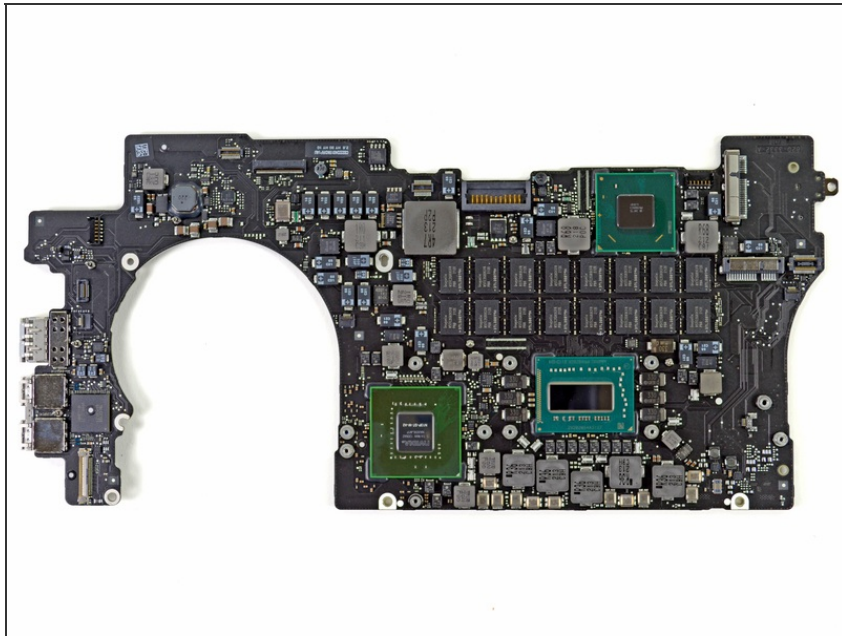
- NVIDIA GeForce GT 650M GPU - quantity 1
- Intel Core-i7 3720QM 2.6 GHz processor (Turbo Boost up to 3.6 GHz) with Intel Graphics HD 4000 - quantity 1
- Hynix H5TC2G83CFR DDR3L SDRAM - quantity 16
- Intel DSL3510L Thunderbolt controller - quantity 1
- Intel E208B284 Platform Controller Hub - quantity 1
- 7137 SAI T18 - quantity 1
- 3301DE2X - quantity 6
- LCPG 221D - quantity 2

## Step 16 — Logic Board



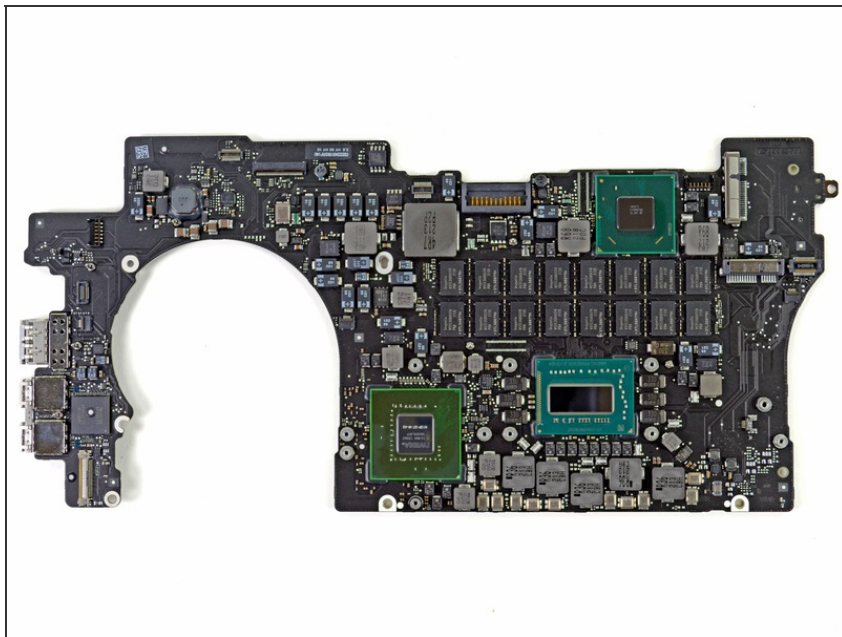
- Z710BBNA W22C - quantity 1
- KO214 1K2 61OE - quantity 2
- 58872D T1 22I A8YV E4 -quantity 2
- Infineon 4AIRZR F213JB - quantity 1
- 58873D TI ICE SGKE - quantity 1
- MXIC 25L6 406E M2I-12GF 3J993600 L121083 - quantity 1
- National Semiconductor VM21AB 45-EXTJ - quantity 1

## Step 17

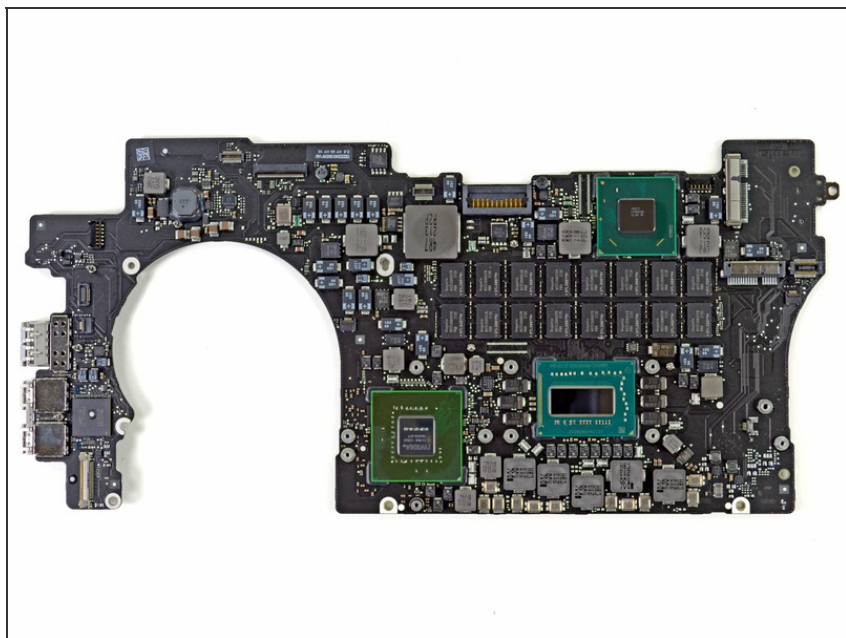


- 10 V22 - quantity 5
- 68 C21 - quantity 13
- 331 E22 - quantity 1
- 33 0I23F - quantity 2
- 33 1E22 - quantity 1
- R36 213 CBH - quantity 5
- R68 218 P0C - quantity 2
- 4R7 213 P2P - quantity 1

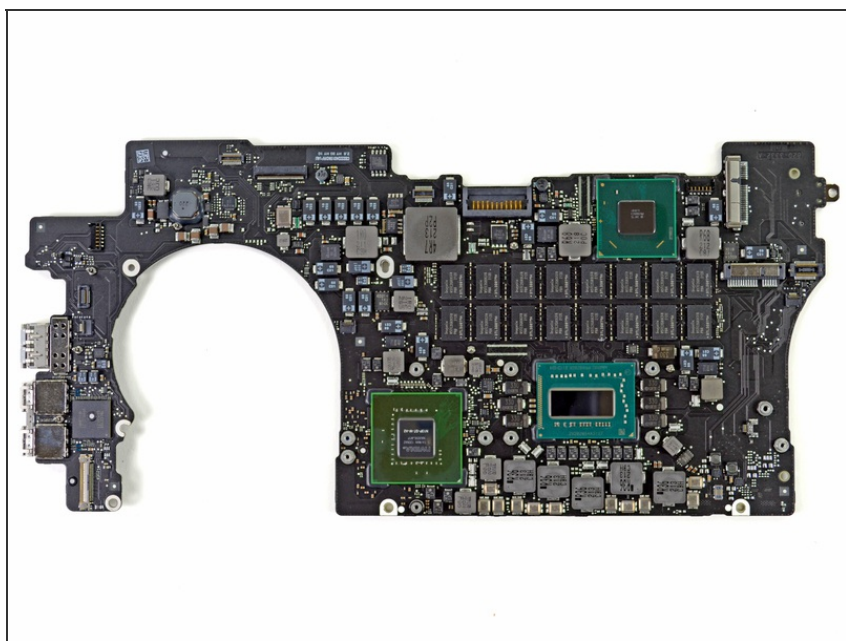
## Step 18



- L8P - quantity 21
- 330 22J0K - quantity 1
- R20 209 PML - quantity 2
- 1R0 211 SHX - quantity 2
- 2710 - quantity 2
- 330 - quantity 1
- 2R2 - quantity 1
- 220 - quantity 1

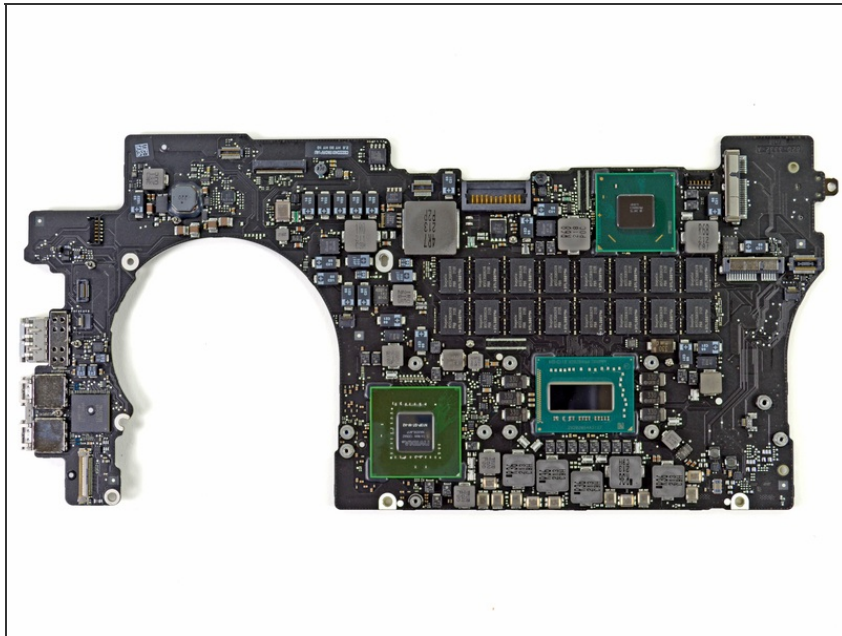
**Step 19**

- 3R3 211 UJC - quantity 1
- 2.2W 1209CX - quantity 1
- J8jr - quantity 1
- LCPG 221D - quantity 2
- Intersil 8014AIRZR - quantity 1
- BNW1YK - quantity 2
- 09BF1MLH - quantity 1
- LDPR 194L - quantity 1

**Step 20**

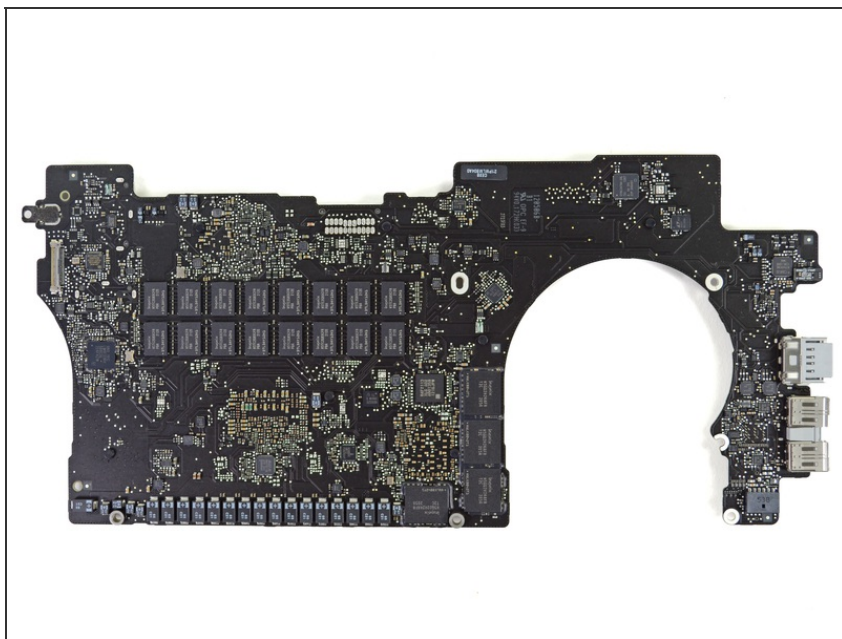
- 638Z0 - quantity 1
- AGΔW22B - quantity 1
- AV0 - quantity 1
- 23 C30 - quantity 1
- 470 Ω resistor - quantity 1
- 100 Ω resistor - quantity 1
- R005 - quantity 1
- 1010-SMMC-1209 - quantity 3

## Step 21



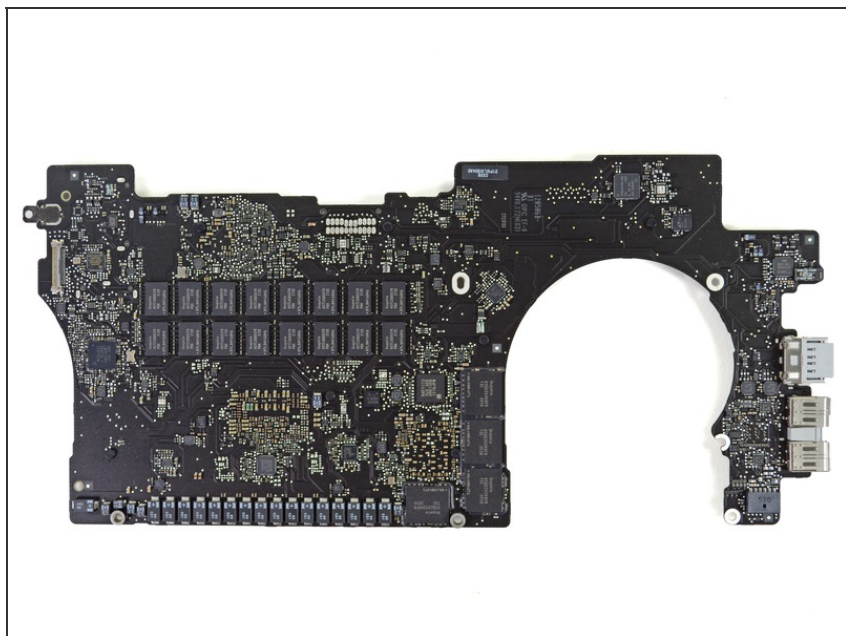
- 1014 55WY 1206 - quantity 1
- 1011 5KT0 1208 - quantity 7

## Step 22



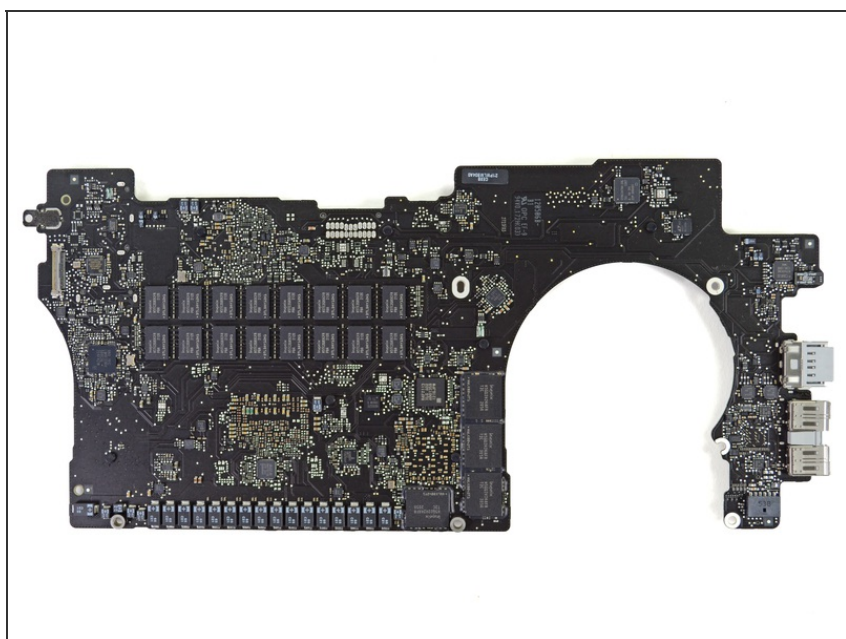
- Hynix H5TC2G83CFR - quantity 16
- Hynix H5GQ2H24AFR - quantity 4
- Texas Instruments Stellaris LM4FS1AH - quantity 1
- Renesas R4F2113 H8S series - quantity 1
- Maxim MAX15119 - quantity 1
- Cypress Semiconductor CY8C24794-24L - quantity 1
- TL020403A 6352 102 Z8D202 - quantity 1
- SMSC USB2512B - quantity 1

## Step 23



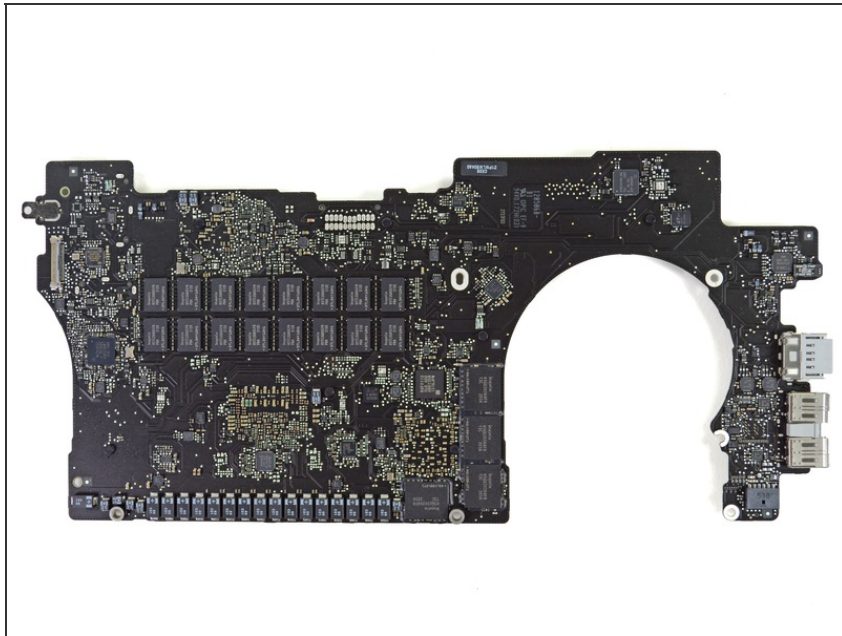
- Infineon 6288C HRTZ F207CVT - quantity 1
- HD3SS212 24KKW R - quantity 1
- ZTB TI 22I AVG5 - quantity 2
- R4F2113 XLG A02 AD01359 1216JPN - quantity 1
- TPS 51980 TI 21K CSD2 - quantity 1
- Infineon 9AHRTZ F207WW - quantity 1
- 3957 B62004 - quantity 1
- CD3210 A0 T1 231 AHHY - quantity 1

## Step 24



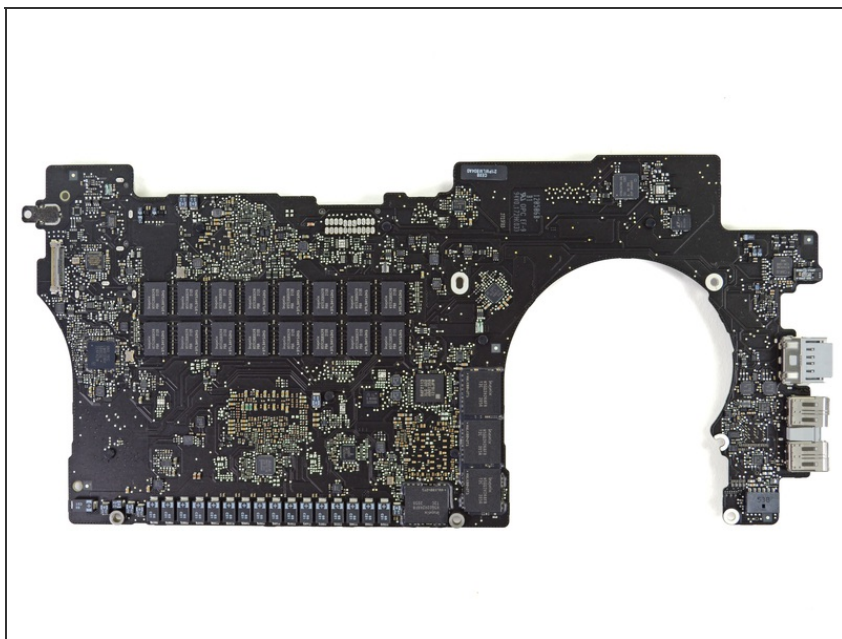
- 68 C21 - quantity 16
- E7 Cn - quantity 4
- J8eb - quantity 3
- jSq - quantity 8
- jSn - quantity 1
- R005 - quantity 1
- 100 - quantity 1
- BMH IAX - quantity 2

## Step 25



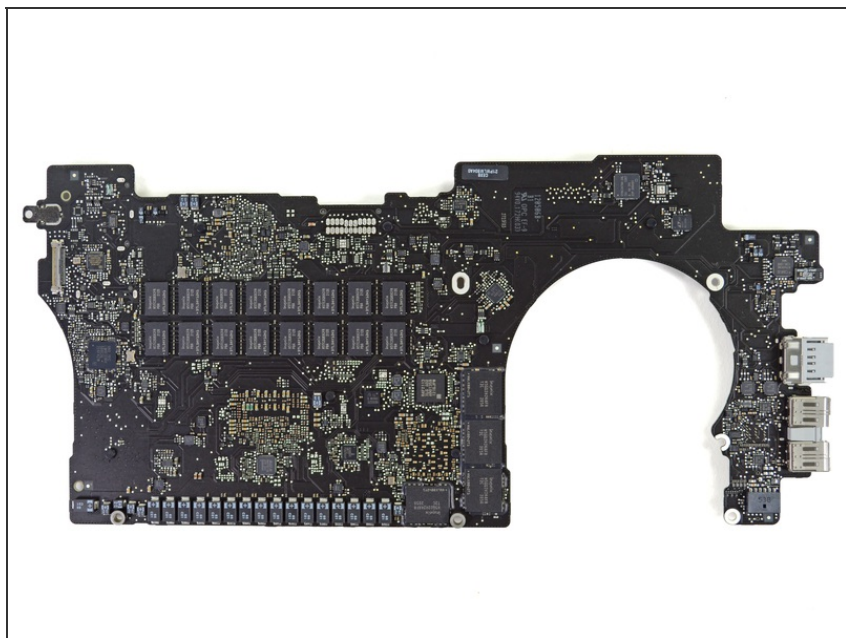
- GAW SMH - quantity 1
- BQZKTI K1C4P - quantity 1
- 3349 113G - quantity 2
- 8OB2CBY - quantity 1
- 27 000 24111 - quantity 1
- ZTBTI 221AVG5 - quantity 2
- VA - quantity 1
- GAV SP9 - quantity 2

## Step 26



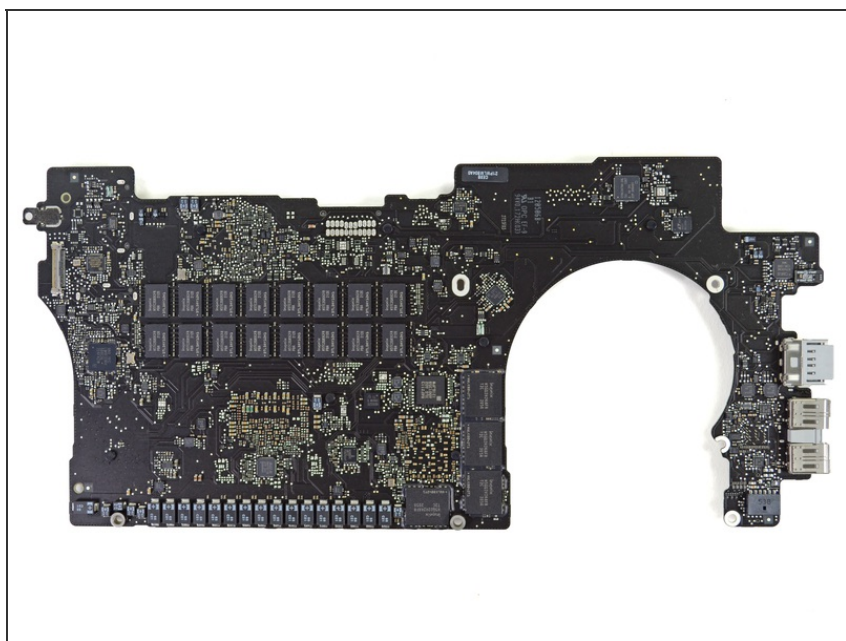
- P8Z3 - quantity 1
- +AIH 210 - quantity 1
- Y2T 201 - quantity 1
- 0134T E2424 - quantity 1
- 1484AV 24006 - quantity 1
- KLD23 3Z014 - quantity 1
- XDDL - quantity 1
- SU - quantity 1

## Step 27



- BNW1Y2 - quantity 3
- V08 - quantity 3
- KABZ4 - quantity 5
- 51916 T1
- BFW2EAB - quantity 1
- 100 - quantity 2
- 7615 BAY - quantity 1
- DP - quantity 2

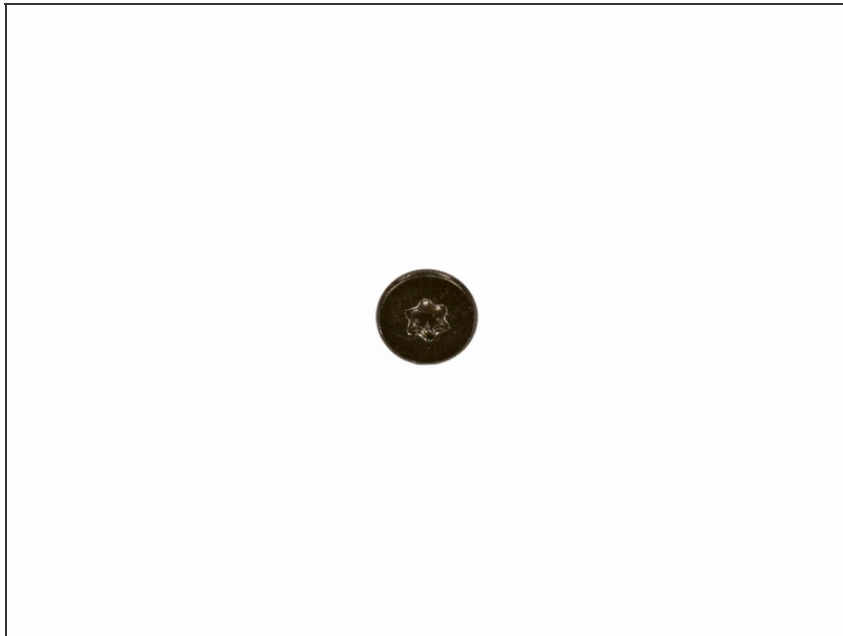
## Step 28



- D1 - quantity 1
- a2 - quantity 1
- BQZ T1 K 1C4P - quantity 1
- 82589AH - quantity 1
- CFT - quantity 1

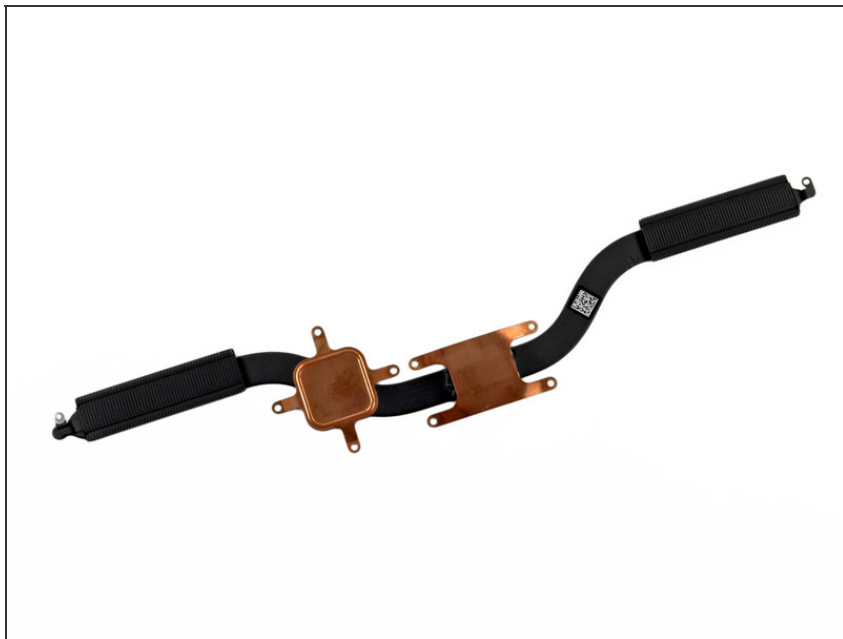


## Step 29



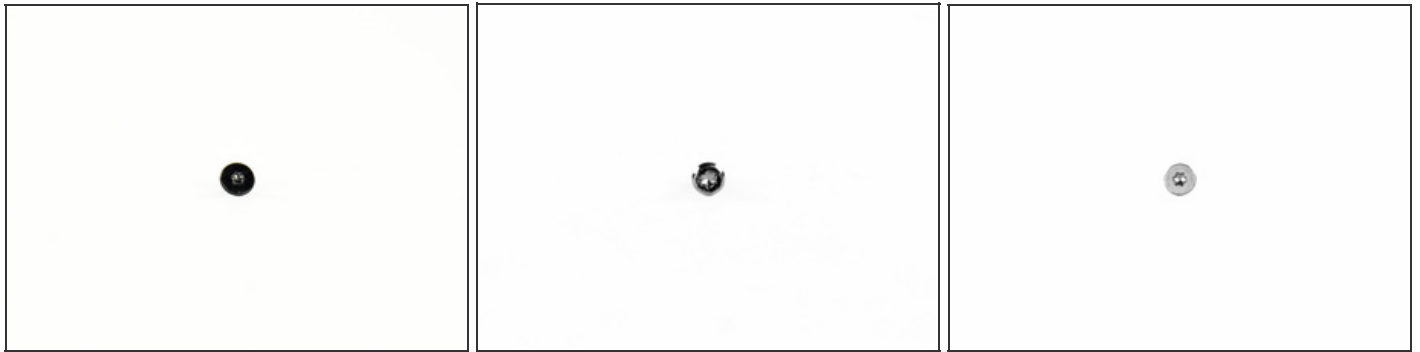
- T5 Torx logic board screw - quantity 4

## Step 30 — Heat Sink



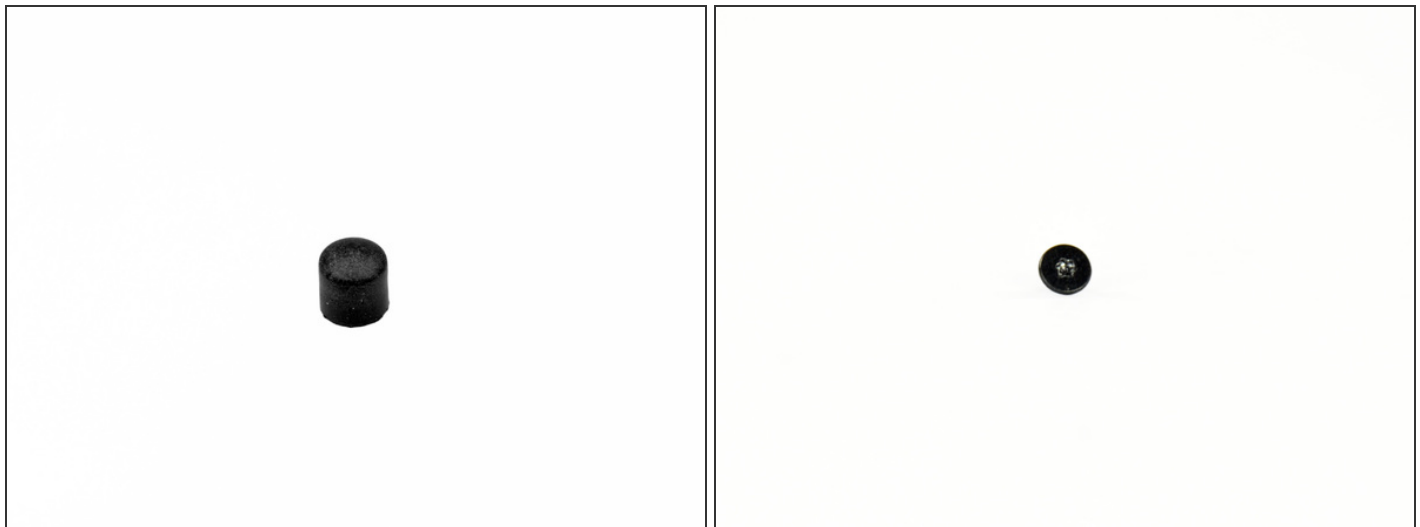
- Logic board heat sink - quantity 1

## Step 31



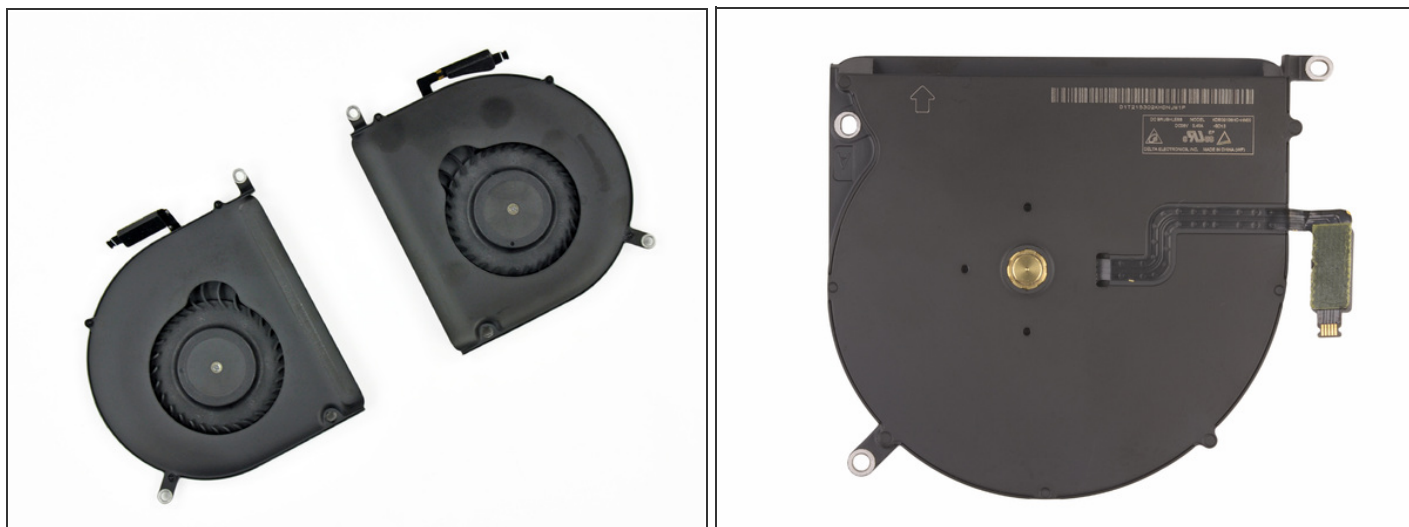
- T5 Torx heat sink screw - quantity 2 (black)
- T5 Torx heat sink screw - quantity 1 (silver)
- T5 Torx heat sink screw - quantity 1 (silver)

## Step 32



- Heat sink grommet - quantity 1
- T5 Torx heat sink screw - quantity 6

### Step 33 — Fans



- Left fan - quantity 1
- Right fan - quantity 1
- Delta Electronics, Inc. KDB06105HC-HM00 - quantity 1

### Step 34



- T5 Torx fan screw - quantity 2
- T5 Torx fan screw - quantity 2
- T5 Torx fan screw - quantity 2

## Step 35



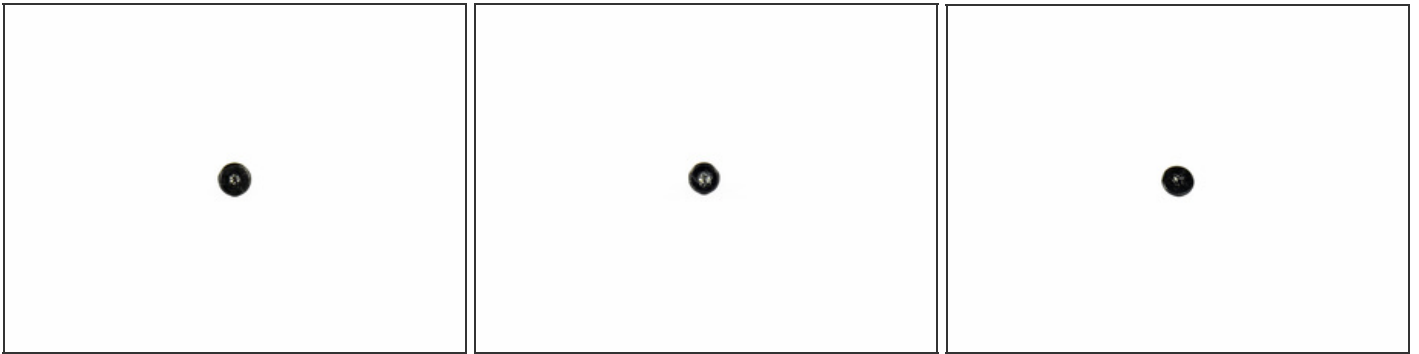
- Left fan duct - quantity 1
- Right fan duct - quantity 1

## Step 36 — Speakers



- Left speaker assembly - quantity 1
- Right speaker assembly - quantity 1

## Step 37



- T5 Torx speaker screw - quantity 2
- T5 Torx speaker screw - quantity 2
- T5 Torx speaker screw - quantity 2

## Step 38 — Microphone



- Dual microphone assembly - quantity 1
- S885 1332 - quantity 2

## Step 39 — Headphone Jack



- Headphone jack - quantity 1
  - TUH - quantity 1
- T5 Torx headphone jack screw - quantity 2

## Step 40 — Power Adapter



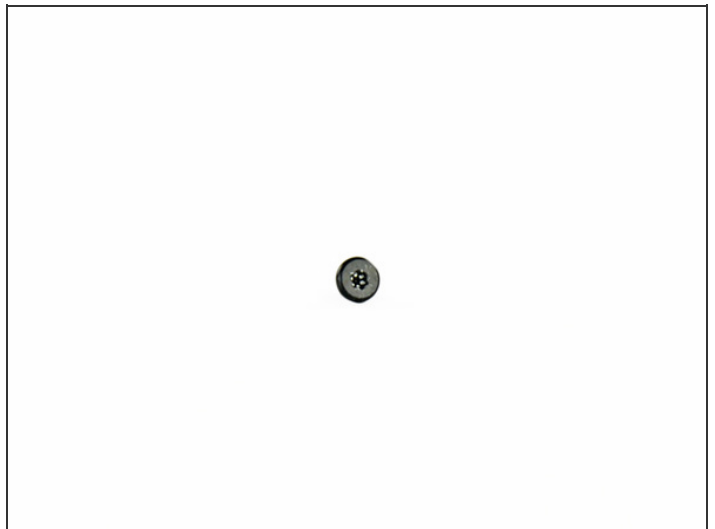
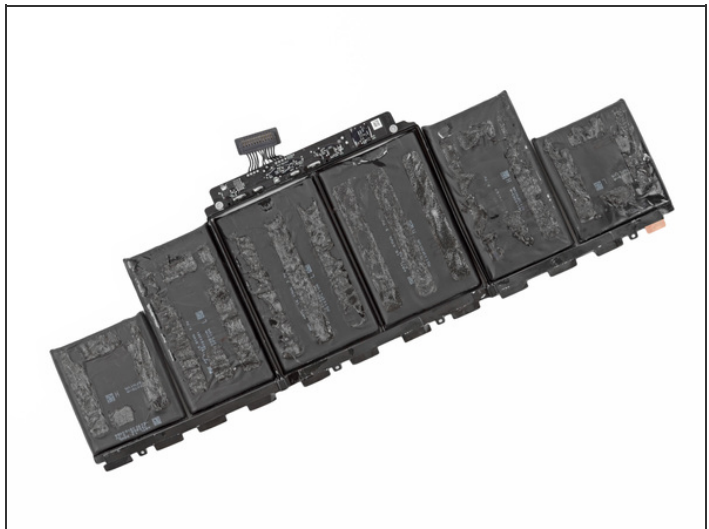
- MagSafe 2 port - quantity 1
  - P7 transistor - quantity 1
- T5 Torx MagSafe 2 board screw - quantity 2

## Step 41 — Cable Guide



- Antenna/FaceTime camera cable routing guide - quantity 1

## Step 42 — Battery



- Main battery - quantity 1
- T5 Torx battery board screw - quantity 2

## Step 43



- Texas Instruments BQ20Z451 - quantity 1
- Parade Technologies 741B 6A2E11 - quantity 4
- 15AH3 SCSF - quantity 2
- CJG 21V - quantity 1

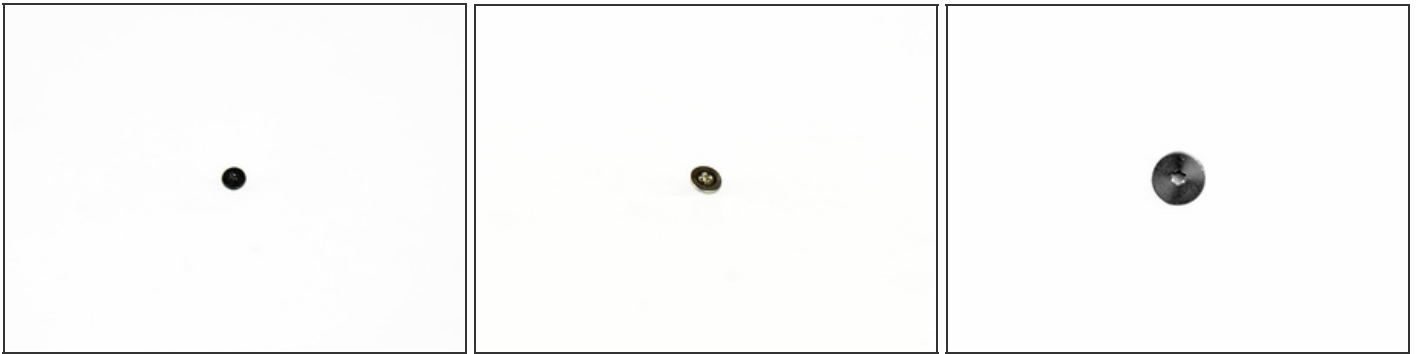
## Step 44 — Trackpad Components



- Trackpad - quantity 1



## Step 45



- Phillips #00 trackpad bracket screw - silver - quantity 3
- Phillips #00 trackpad bracket screw - black - quantity 3
- T5 Torx trackpad set screw - quantity 1

## Step 46



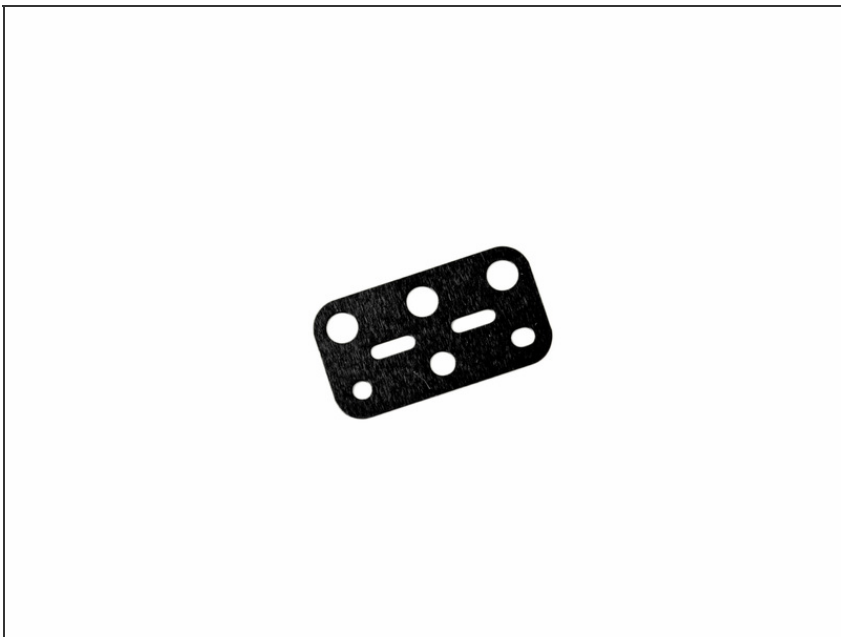
- Trackpad cable
  - Silicon Storage Technology 25VF020 - quantity 1
  - Broadcom BCM5976A0KUB2G - quantity 1
  - SBO - quantity 1
  - A1 - quantity 6

## Step 47



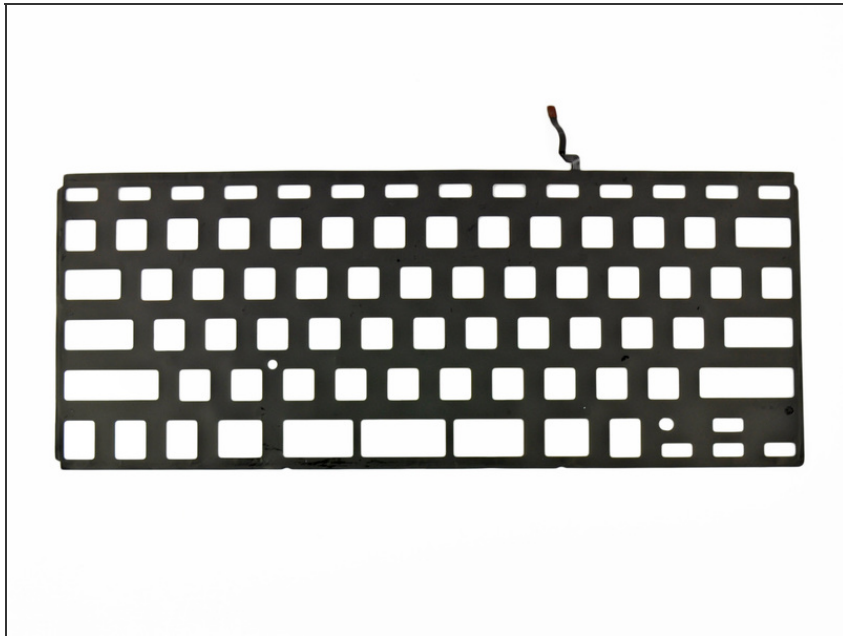
- Trackpad backing plate - quantity 1

## Step 48



- Trackpad retaining bracket - quantity 2

## Step 49 — Keyboard Light



- Keyboard backlight - quantity 1
- 818-2707 ANSI D 022912 C13 4

## Step 50 — Hinge Components



- Rubber display hinge cover - quantity 2

## Step 51



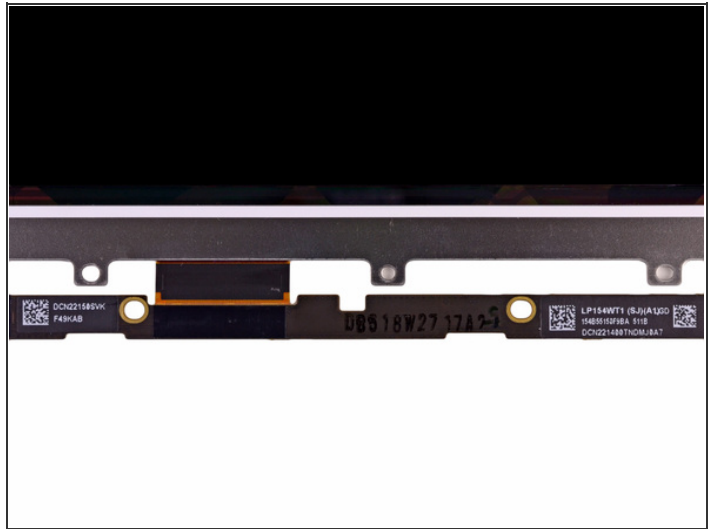
- Lower display hinge bracket - quantity 2

## Step 52



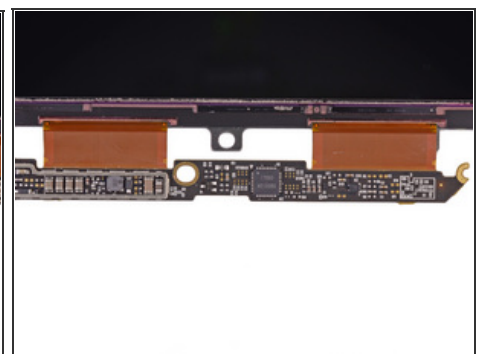
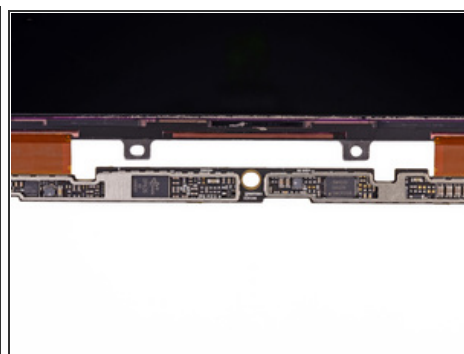
- Upper display hinge bracket - quantity 2

## Step 53 — Display Components



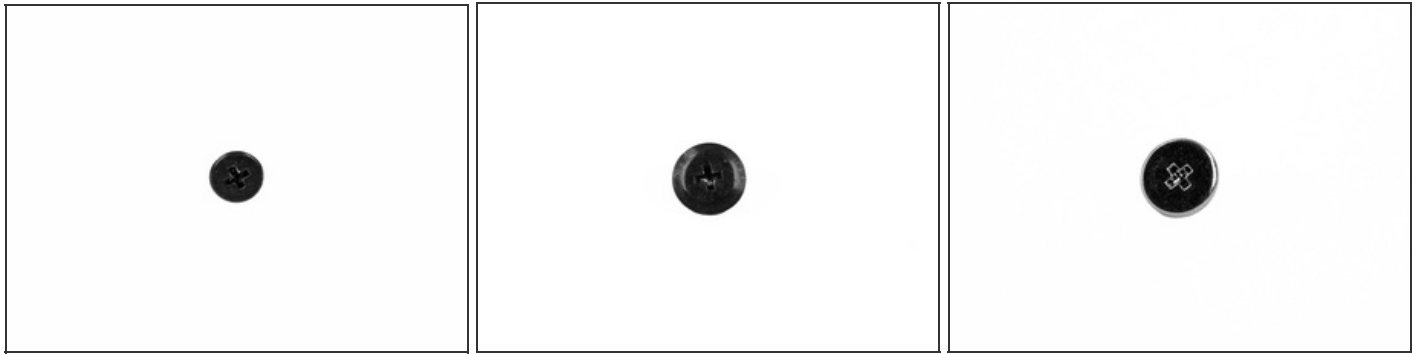
- Retina display front panel assembly - quantity 1
  - Parade Technologies DP635 - quantity 1
  - SM4031 DA1210 SMCP1008 - quantity 1
  - i7990 H213383 - quantity 1

## Step 54



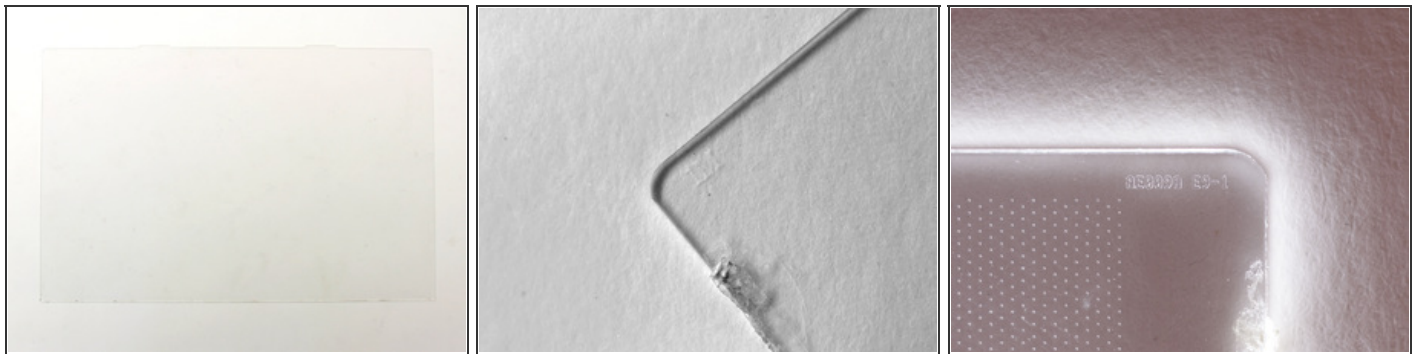
- 416R 8115 - quantity 1
- GD EB D29 - quantity 1
- 29P Z3 - quantity 1
- 21 YN - quantity 1
- 37 Z3 - quantity 1
- 5C8 - quantity 2
- N1 - quantity 1

## Step 55



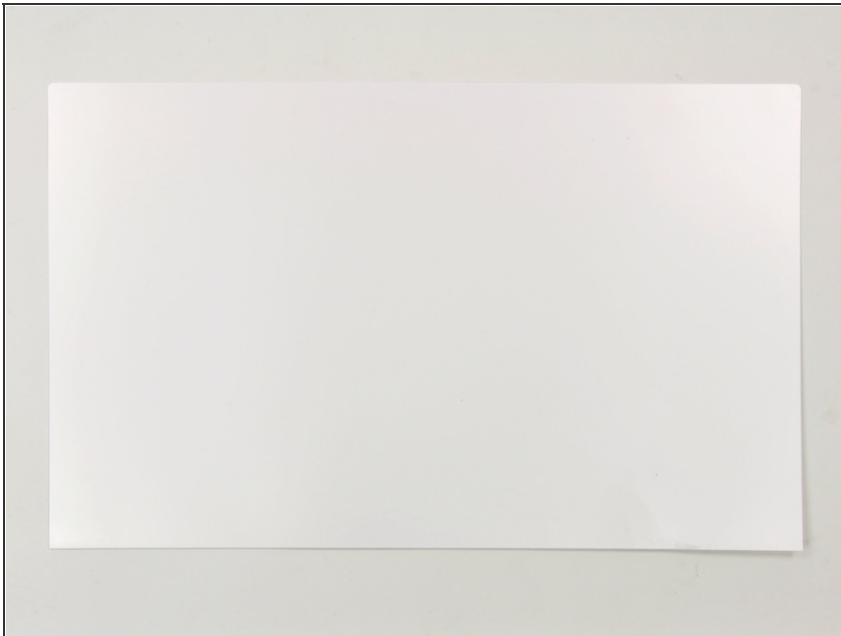
- Phillips #00 antenna screw - quantity 7
- Phillips #00 Retina display middle screw - quantity 6
- Phillips #00 Retina display corner screw - quantity 4

## Step 56



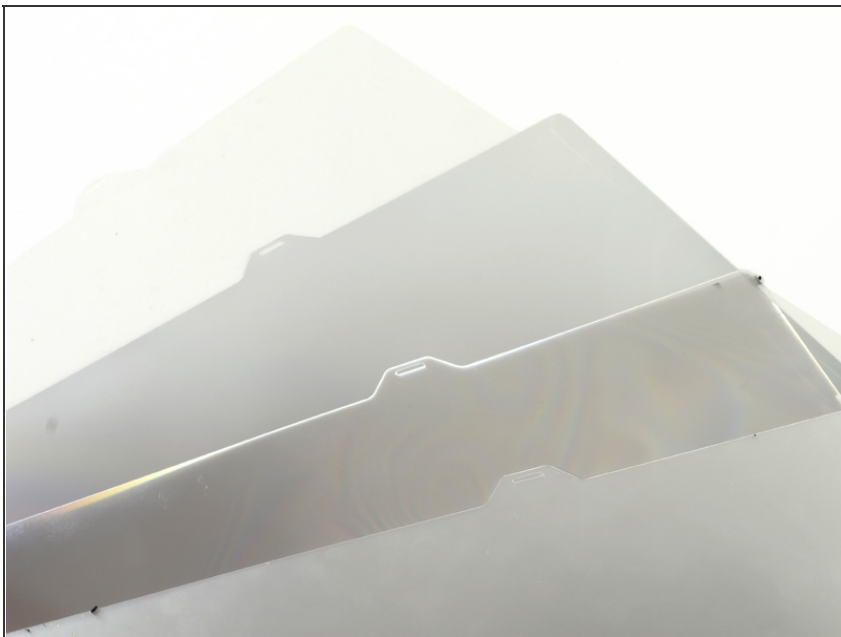
- Light guide plate - quantity 1
  - 1M
  - AE009A E9-1

## Step 57



- White paper backdrop for LED backlights - quantity 1

## Step 58



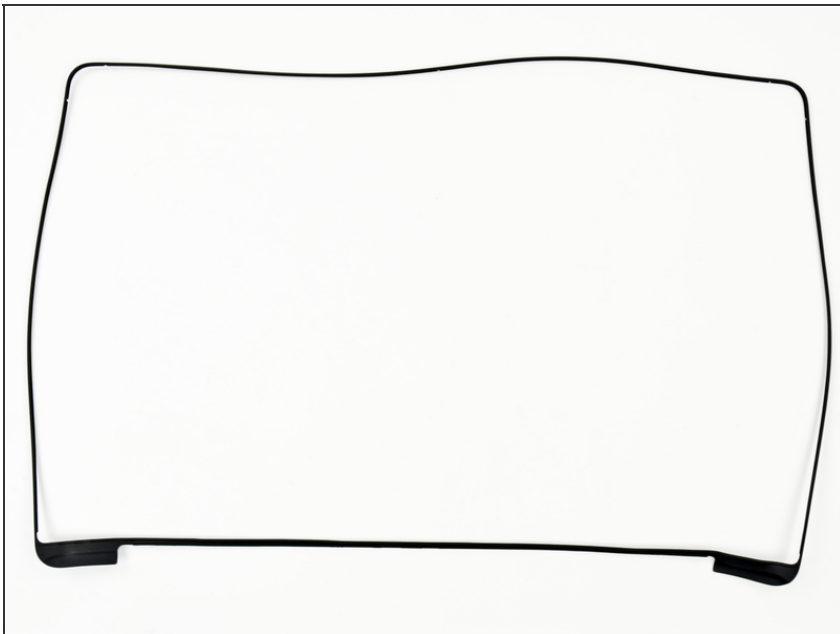
- Diffuser film - quantity 2
- Prism film - quantity 1
- Polarizing sheet - quantity 1

## Step 59



- Retina display LED backlight strip - quantity 1
  - Career QT003A-S368-0J-L3/QT003A-12A S 1216

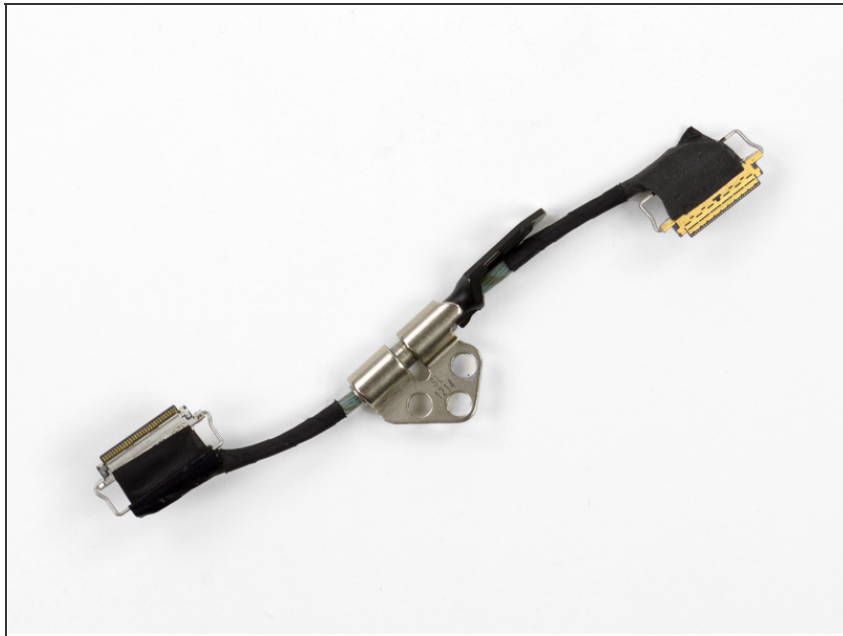
## Step 60



- Display bezel rubber dust gasket - quantity 1



## Step 61 — Hinges



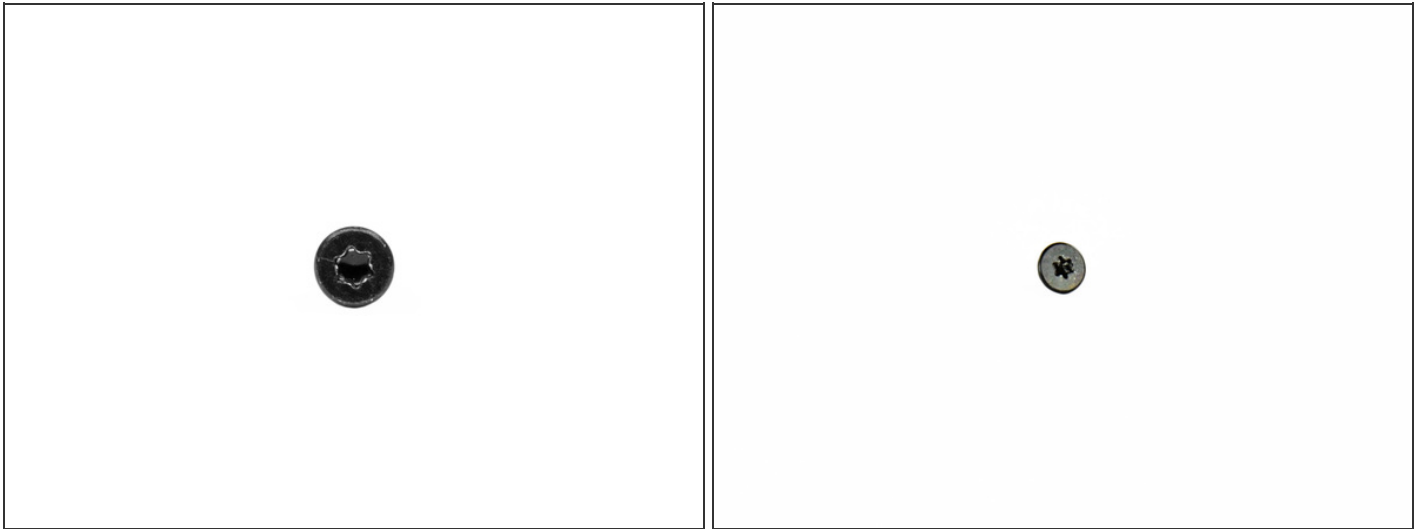
- Display data cable - quantity 1
- Left display hinge- quantity 1

## Step 62



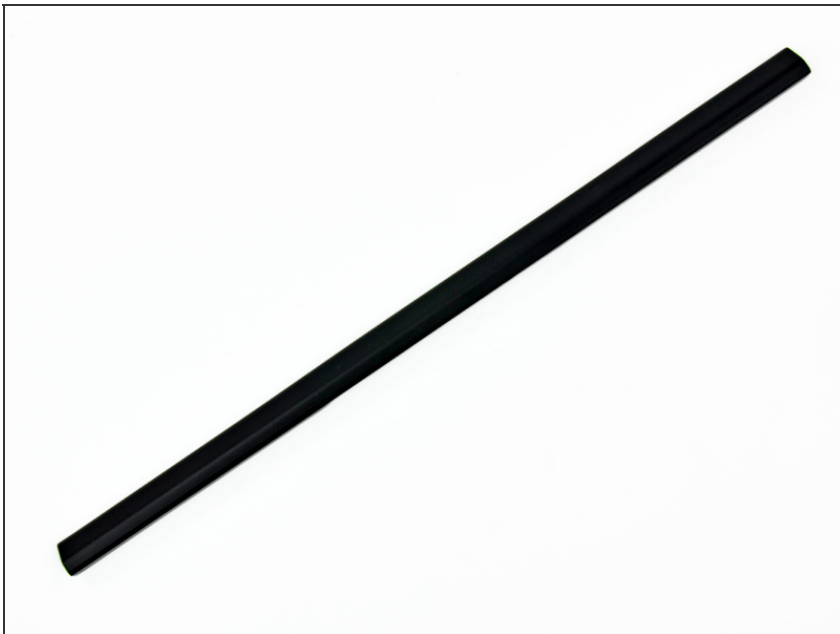
- Wi-Fi/Bluetooth antenna and cable assembly - quantity 1
- Right display hinge - quantity 1

## Step 63



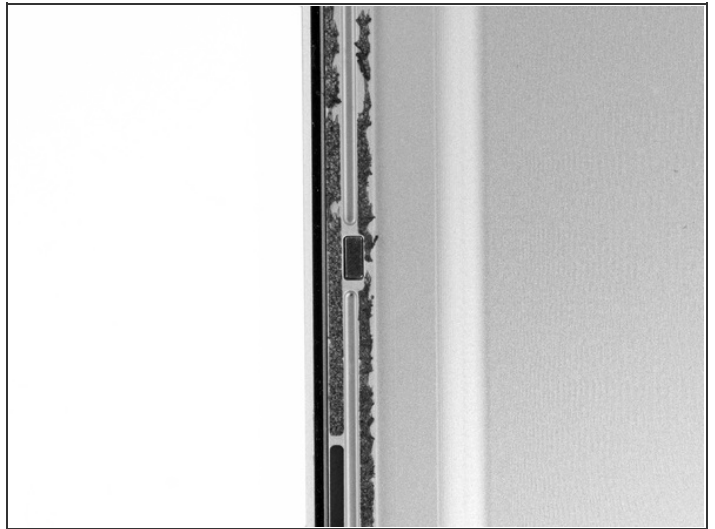
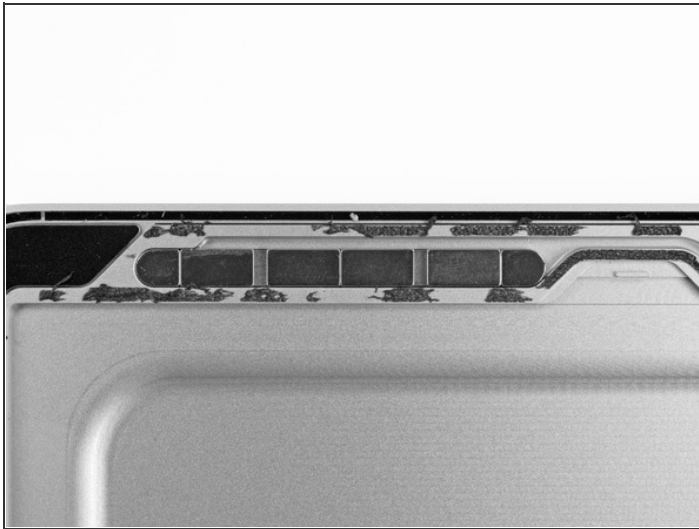
- T9 Torx display hinge screw - quantity 6
- T5 Torx lower display hinge bracket screw - quantity 2

## Step 64



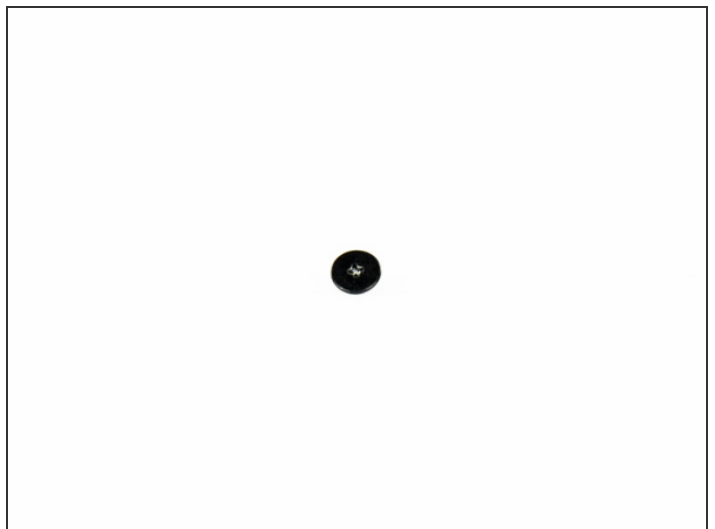
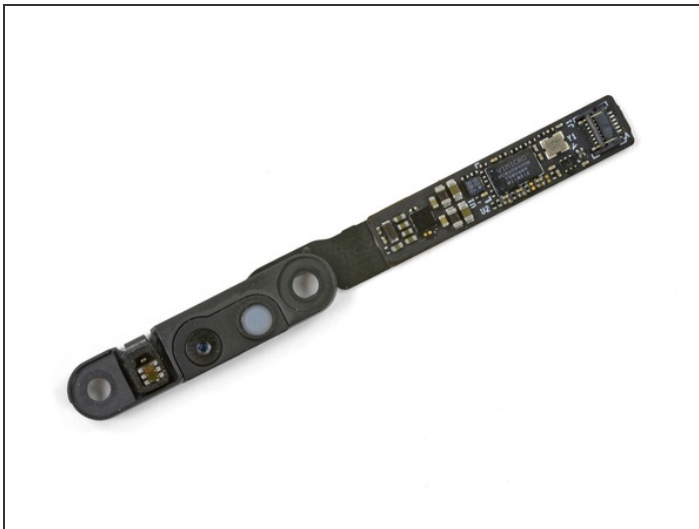
- Display hinge clutch cover - quantity 1

## Step 65 — Magnets



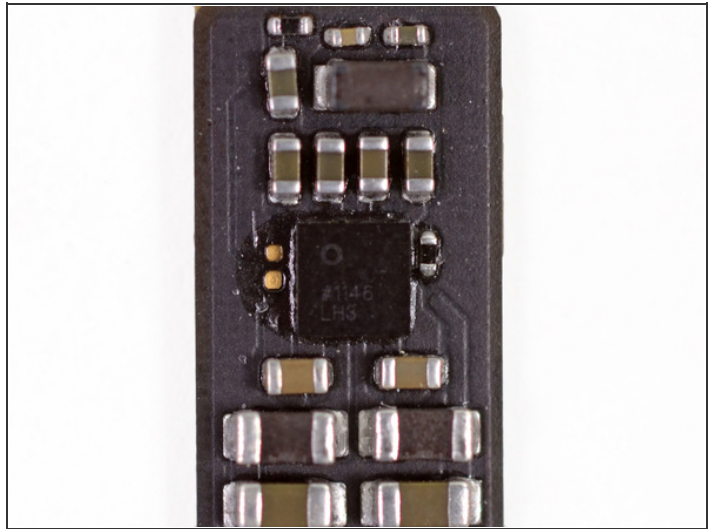
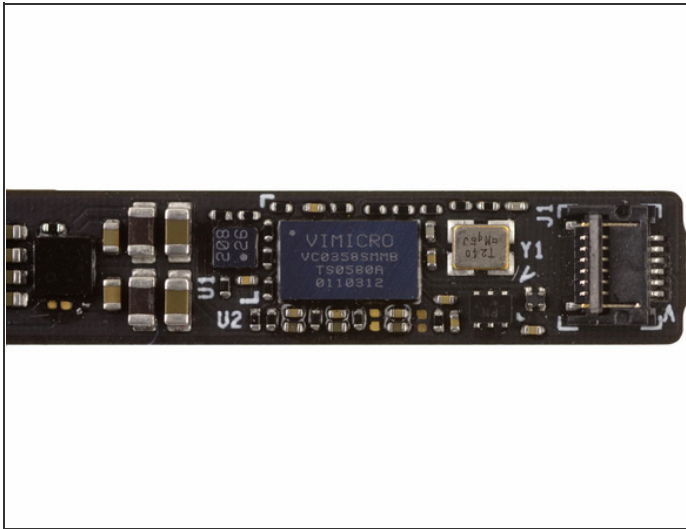
- 6 magnet display closure assembly - quantity 2
- Sleep/Wake Magnet - quantity 1

## Step 66 — Camera Assembly



- FaceTime camera and microphone assembly - quantity 1
- Phillips #00 FaceTime board screw - quantity 2

## Step 67



- Vimicro VC0358 - quantity 1
- T240 Mq5J - quantity 1
- O #1146 LH3 - quantity 1
- 20826 - quantity 1

To reassemble your device, follow these instructions in reverse order.

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